SEQUENCE LISTING

<110> Yang, Shumin
McCall, Catherine A.
Weber, Eric R.

<120> CANINE AND FELINE IMMUNOREGULATORY PROTEINS, NUCLEIC ACID MOLECULES, AND USES THEREOF

<130> IM-2-C1-C1

<140> not yet assigned
<141> 2001-01-05

<150> 09/322,409
<151> 1999-05-28

<150> 60/087,306
<151> 1998-05-29

<160> 21

<170> PatentIn Ver. 2.1

<210> 1
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<223> Description of Artificial Sequence: Synthetic Primer

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<220>
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<220>
<223> Description of Artificial Sequence: Synthetic
Primer

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<213> Canis familiaris

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<221> CDS
<222> (29)..(430)

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1 5

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Leu Leu Ala Leu Gly Ala Ala Tyr Val Ser Ala Phe Ala Val Glu Asn
10 15 20

ccc atg aat aga ctg gtg gca gag acc ttg aca ctg ctc tcc act cat 148
Pro Met Asn Arg Leu Val Ala Glu Thr Leu Thr Leu Leu Ser Thr His
25 30 35 40

cga act tgg ctg ata ggc gat ggg aac ctg atg att cct act cct gaa 196
Arg Thr Trp Leu Ile Gly Asp Gly Asn Leu Met Ile Pro Thr Pro Glu
45 50 55

aat aaa aat cac caa ctg tgc att aaa gaa gtt ttt cag ggt ata gac 244
Asn Lys Asn His Gln Leu Cys Ile Lys Glu Val Phe Gln Gly Ile Asp
60 65 70

aca ttg aag aac caa act gcc cac ggg gag gct gtg gat aaa cta ttc 292
Thr Leu Lys Asn Gln Thr Ala His Gly Glu Ala Val Asp Lys Leu Phe
75 80 85

caa aac ttg tct tta ata aaa gaa cac ata gag cgc caa aaa aaa agg 340
Gln Asn Leu Ser Leu Ile Lys Glu His Ile Glu Arg Gln Lys Lys Arg
90 95 100

tgt gca gga gaa aga tgg aga gtg aca aag ttc cta gac tac ctg caa 388
Cys Ala Gly Glu Arg Trp Arg Val Thr Lys Phe Leu Asp Tyr Leu Gln
105 110 115 120

gta ttt ctt ggt gta ata aac acc gag tgg aca ccg gaa agt 430
Val Phe Leu Gly Val Ile Asn Thr Glu Trp Thr Pro Glu Ser
125 130

tgagaacaaa ccggcttatt gtagtggaag attttggaga agaatggttt tttggcgatg 490

agaatgaggg ccaaccaaca gtagggactt aatggccagt ataactaagc ttcagagaca 550

aagtaaatat ttcaggcatc ctactacttt atcacttcac acagatgaaa tatatttgag 610

<210> 5
<211> 134
<212> PRT
<213> Canis familiaris

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20 25 30

Thr Leu Thr Leu Leu Ser Thr His Arg Thr Trp Leu Ile Gly Asp Gly
35 40 45

Asn Leu Met Ile Pro Thr Pro Glu Asn Lys Asn His Gln Leu Cys Ile
50 55 60

Lys Glu Val Phe Gln Gly Ile Asp Thr Leu Lys Asn Gln Thr Ala His
65 70 75 80

Gly Glu Ala Val Asp Lys Leu Phe Gln Asn Leu Ser Leu Ile Lys Glu
85 90 95

His Ile Glu Arg Gln Lys Lys Arg Cys Ala Gly Glu Arg Trp Arg Val
100 105 110

Thr Lys Phe Leu Asp Tyr Leu Gln Val Phe Leu Gly Val Ile Asn Thr

115 120 125

Glu Trp Thr Pro Glu Ser
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catcgccaaa aaaccattct tctccaaaat cttccactac aataagccgg tttgttctca 180
actttccggt gtccactcgg tgtttattac accaagaaat acttgcaggt agtctaggaa 240
ctttgtcact ctccatcttt ctcctgcaca cctttttttt tggcgctcta tgtgttcttt 300
tattaaagac aagttttgga atagtttatc cacagcctcc ccgtgggcag tttggttctt 360
caatgtgtct ataccctgaa aaacttcttt aatgcacagt tggtgatttt tattttcagg 420
agtaggaatc atcaggttcc catcgcctat cagccaagtt cgatgagtgg agagcagtgt 480
caaggtctct gccaccagtc tattcatggg attttctaca gcaaaggcag aaacataggc 540
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gtttgccttg 610

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<213> Canis familiaris

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cgaacttggc tgataggcga tgggaacctg atgattccta ctcctgaaaa taaaaatcac 180
caactgtgca ttaaagaagt ttttcagggt atagacacat tgaagaacca aactgcccac 240
ggggaggctg tggataaact attccaaaac ttgtctttaa taaaagaaca catagagcgc 300
caaaaaaaaa ggtgtgcagg agaaagatgg agagtgacaa agttcctaga ctacctgcaa 360
gtatttcttg gtgtaataaa caccgagtgg acaccggaaa gt 402

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<213> Canis familiaris

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tattaaagac aagttttgga atagtttatc cacagcctcc ccgtgggcag tttggttctt 180
caatgtgtct ataccctgaa aaacttcttt aatgcacagt tggtgatttt tattttcagg 240
agtaggaatc atcaggttcc catcgcctat cagccaagtt cgatgagtgg agagcagtgt 300
caaggtctct gccaccagtc tattcatggg attttctaca gcaaaggcag aaacataggc 360
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<211> 345
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<213> Canis familiaris

<220>
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<222> (1)..(345)

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ctg	ctc	tcc	act	cat	cga	act	tgg	ctg	ata	ggc	gat	ggg	aac	ctg	atg	96
Leu	Leu	Ser	Thr	His	Arg	Thr	Trp	Leu	Ile	Gly	Asp	Gly	Asn	Leu	Met	
		20					25					30				
att	cct	act	cct	gaa	aat	aaa	aat	cac	caa	ctg	tgc	att	aaa	gaa	gtt	144
Ile	Pro	Thr	Pro	Glu	Asn	Lys	Asn	His	Gln	Leu	Cys	Ile	Lys	Glu	Val	
		35					40					45				
ttt	cag	ggt	ata	gac	aca	ttg	aag	aac	caa	act	gcc	cac	ggg	gag	gct	192
Phe	Gln	Gly	Ile	Asp	Thr	Leu	Lys	Asn	Gln	Thr	Ala	His	Gly	Glu	Ala	
		50					55					60				
gtg	gat	aaa	cta	ttc	caa	aac	ttg	tct	tta	ata	aaa	gaa	cac	ata	gag	240
Val	Asp	Lys	Leu	Phe	Gln	Asn	Leu	Ser	Leu	Ile	Lys	Glu	His	Ile	Glu	
65					70					75					80	
cgc	caa	aaa	aaa	agg	tgt	gca	gga	gaa	aga	tgg	aga	gtg	aca	aag	ttc	288
Arg	Gln	Lys	Lys	Arg	Cys	Ala	Gly	Glu	Arg	Trp	Arg	Val	Thr	Lys	Phe	
				85					90					95		
cta	gac	tac	ctg	caa	gta	ttt	ctt	ggt	gta	ata	aac	acc	gag	tgg	aca	336
Leu	Asp	Tyr	Leu	Gln	Val	Phe	Leu	Gly	Val	Ile	Asn	Thr	Glu	Trp	Thr	
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Pro	Glu	Ser														

115

<210> 10
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<212> PRT
<213> Canis familiaris

<400> 10

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Ile Pro Thr Pro Glu Asn Lys Asn His Gln Leu Cys Ile Lys Glu Val
         35                  40                  45

Phe Gln Gly Ile Asp Thr Leu Lys Asn Gln Thr Ala His Gly Glu Ala
     50                  55                  60

Val Asp Lys Leu Phe Gln Asn Leu Ser Leu Ile Lys Glu His Ile Glu
 65                  70                  75                  80

Arg Gln Lys Lys Arg Cys Ala Gly Glu Arg Trp Arg Val Thr Lys Phe
                 85                  90                  95

Leu Asp Tyr Leu Gln Val Phe Leu Gly Val Ile Asn Thr Glu Trp Thr
            100                 105                 110

Pro Glu Ser
        115
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<210> 11
<211> 345
<212> DNA
<213> Canis familiaris

<400> 11

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tattaaagac aagttttgga atagtttatc cacagcctcc ccgtgggcag tttggttctt 180
caatgtgtct ataccctgaa aaacttcttt aatgcacagt tggtgatttt tattttcagg 240
agtaggaatc atcaggttcc catcgcctat cagccaagtt cgatgagtgg agagcagtgt 300
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<210> 12
<211> 36
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Primer

<400> 12
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<210> 13
<211> 32
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Primer

<400> 13
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<210> 14
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Primer

<400> 14
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<210> 15
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Primer

<400> 15
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<210> 16
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Primer

<400> 16
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<210> 17
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic Primer

<400> 17
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<210> 18
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<212> DNA
<213> Canis familiaris

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<222> (171)..(373)

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<221> intron
<222> (407)..(1275)

<220>
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<222> (1405)..(1522)

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agaccttgac actgctctcc actcatcgaa cttggctgat aggcgatggg gtaattttct 180
ttttgattcc tacagtcttt aaaatgcatg ggtaattggt ggtggtggct agtttttaaa 240
gatccattat caataatgaa gtaatgagtg ttaataatat ataatgggta accatgttac 300
tcagaagaat tatattaaaa gttatgaacc ttacaataca ttaaaaatga atgttgtttc 360
ctttcttttt cagaacctga tgattcctac tcctgaaaat aaaaatgtaa gttaaattat 420
gatttgataa aatgattaca tgaatcagtt tcatatttta agctataaag tatcagttaa 480
cattgggatg atttaatttt atctattttg tttttatgtg tgcggatgta aattatgtgc 540
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ggcattcttt ccaaaagaat tccatattgg gtcagagata cttcctaggc tccattcacc 720
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agaacaaacc ggcttattgt agtggaagat tttggaga 1658

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<211> 1658
<212> DNA
<213> Canis familiaris

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tgtaaaaaaa aaaaaaaaaa acaggcagag tcagacaaat atacttaagt ttttgccaaa 240
tgtctttaac ttacttttg gcgctctatg tgttctttta ttaaagacaa gttttggaat 300
agtttatcca cagcctcccc gtgggcagtt tggttcttca atgtgtctat accctgaaaa 360
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aacaaggcat aaaaatttgg tccaaaagtt agactttgtt ttgtggggtt tacacaagtt 480
cccttctccc aagaggtttt tacttgtgtc ttttccgggt gggaaaccac cttatactaa 540
gctataatta ccataagtaa atgatgttta tataattact gagaagtgtt acaaatgata 600
taaatgaaat gattaatgaa aaataaatgc ttacgaggta taatacaact gccttactga 660

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<210> 20
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: N-terminal peptide

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<210> 21
<211> 671
<212> DNA
<213> Canis familiaris

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gtgtgcagga gaaagatgga gagtgacaaa gttcctagac tacctgcaag tatttcttgg 600
tgtaataaac accgagtgga caccggaaag ttgagaacaa accggcttat tgtagtggaa 660
gattttggag a 671